Pest Management Grants Final Report

Contract #: 99-0208

Contract Title: Promotion of Vineyard Pest and Disease Monitoring and Reduced-Risk Pest Management Practices in Sonoma County

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Prepared for the California Department of Pesticide Regulation

The statements and conclusions in this report are those of the contractor and not necessarily those of the California Department of Pesticide Regulation. The mention of commercial products, their source, or their use in connection with material reported herein is not to be construed as actual or implied endorsement of such products.

Acknowledgements:

The Sonoma County Grape Growers Association acknowledges the contributions of the following individuals:

- Principal Investigators Duff Bevill, John Clendenen, Pete Opatz and Joe Votek who manage the four demonstration vineyards;
- Demonstration vineyard owners: Gallo of Sonoma, Martini Ranch; Scott Adams, Adams Ranch; Clos du Bois, Reedy Ranch; and Dom Paino, Rancho Salina Vineyard;
- IPM Field Specialist and PCA, Laura Breyer;
- IPM Project Coordinator, Lisa Azevedo;
- University of California Cooperative Extension Advisor Cooperators, Lucia Varela and Rhonda Smith; and
- The California Department of Pesticide Regulation and Sewell Simmons, coordinator for the project.

This report was submitted in fulfillment of DPR Contract # 99-0208 titled "Promotion of Vineyard Pest and Disease Monitoring and Reduced-Risk Pest Management Practices in Sonoma County by the Sonoma County Grape Growers Association under the partial sponsorship of the California Department of Pesticide Regulation. Work was completed as of February 23, 2001.

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Abstract

The Sonoma County IPM Project is comprised of 4 main components: 1) a field data collection form and a database developed to store vineyard monitoring information 2) the Management Team (MT) that met monthly to ensure the success of the IPM Project 3) weekly monitoring of the four Principal Investigator's (P.I.) vineyards by the Pest Control Adviser (PCA/IPM Field Specialist) and data management/meeting organization by the Project Coordinator and 4) a monthly set of Grower Appellation Meetings (GAM) in each of four appellations that summarized monitoring reports and reinforced IPM concepts and an end-of-season grower field day that summarized the IPM Project and again reinforced IPM concepts.

A database was developed with input from University of California Cooperative Viticulture Extension Farm Advisor, University of California Area wide IPM Advisor, and the IPM Field Specialist. The database is called the *Sonoma County Vineyard IPM Log* and will be made available to any grape grower in Sonoma County beginning in 2001. The field data collection form was developed to not only record field monitoring results, but to provide directions. Weekly monitoring data were input throughout the season and weekly monitoring reports for each of the sites were made available at the GAM. Monitoring reports were faxed to the P.I.s each week. Summary reports and graphs for the specific pest/disease being covered in the monthly meeting were also provided. Pesticide use report data are included in the *IPM Vineyard Log*.

Management Team meetings occurred monthly and included UCCE Cooperators, Principal Investigators, the IPM Field Specialist, Project Coordinator and Demonstration Grant Contractor. The MT determined the schedule of topics to be covered at the GAM. Following each GAM, the MT reviewed pests targeted at past and future GAM and discussed teaching aids, delivery methods and logistical flow of the next GAM. The MT discussed strategies to increase attendance as well as participation by growers attending GAM's. Detailed planning for the IPM Field Day held in late August was accomplished through the MT meetings.

Beginning in April and continuing throughout the summer, the IPM Field Specialist monitored four sites in four different appellations of Sonoma County each week. The UCCE Advisors, P.I.s, and the IPM Field Specialist developed the monitoring process as appropriate for the specific pests and diseases targeted in the demonstration grant. The IPM Field Specialist maintained consistent communication with each P.I. throughout the season. The Project Coordinator entered and managed the monitoring data and provided meeting organization, publicity and follow-up.

Grower Appellation Meetings were held in each of the four vineyard blocks throughout the growing season. The IPM Field Specialist and site P.I. led each meeting and discussed monitoring results from the previous four weeks and management decisions that had been made based on the monitoring information. Identification exercises and examples were part of each GAM. Cultural and biological controls and/or reduced-risk pesticide options were discussed at each GAM. Each GAM had specific learning points and then time was devoted to the key issue at each site. The Sonoma County IPM Field Day was held on August 23, 2000, to provide a summary of the project's outcomes to growers/managers, PCA's and industry people.

Executive Summary

The Sonoma County IPM Project goals are to increase pest monitoring as the first step in Integrated Pest management, to consider reduced risk pest management options when pest management is needed, and to decrease use of specific fungicides and miticides, i.e. maneb, mancozeb, Omite® and Vendex®.

In order to achieve these goals, 4 demonstration vineyards were monitored weekly for pests, results were presented monthly at Grower Appellation Meetings (GAM), monitoring techniques were taught to nearly 100 growers attending monthly GAM, and pest monitoring data and management implications were discussed by P.I.s, the IPM Field Specialist and local grape growers. Cultural and biological controls of pests were discussed, and reduced-risk pesticides were considered when pesticide treatments were required.

A database was developed with input from University of California Cooperative Viticulture Extension Farm Advisor, University of California Area wide IPM Advisor, and the IPM Field Specialist. The database is called the *Sonoma County Vineyard IPM Log* and will be made available to any grape grower in Sonoma County beginning in 2001. Weekly monitoring data were input throughout the season and weekly monitoring reports for each of the sites were made available at the GAM. Summary reports and graphs for the specific pest/disease being covered in the monthly meeting were provided to growers at each GAM. Pesticide use report data are included in the *IPM Vineyard Log*.

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We will build on the successes of the 2000 program in 2001 by expanding the GAM to 1½ hours. Pest identification and monitoring will be taught in the first ½ hour for those who want to increase skills. The last hour will be devoted to discussion of pest management options for the demonstration vineyard and grower vineyards in the region. Growers will also be encouraged to report field-monitoring data to the *Sonoma County Vineyard IPM Log*. If sufficient growers participate, summaries of pest monitoring data for each appellation will be posted on the SCGGA web site so that growers can track local pest pressures in neighboring vineyards. In addition, pest monitoring and identification will be taught in Spanish for vineyard workers, thereby increasing the monitoring capability in Sonoma County vineyards. We expect good participation based upon attendance by over 230 field workers for glassy-winged sharpshooter identification classes in 2000.

Report

Objective 1: Promote adoption of vineyard field monitoring by defining criteria.
Task 1: Management Team will discuss, define and come to consensus on the essential components of good field monitoring. Decide on data collection techniques that are appropriate for specific pests, natural enemies and diseases at different times of the year. Decide on standardized field data collection form. *Provide input to programmer on* database design.
Outputs: a) Monitoring Techniques and Field Data Collection From draft by March, Final by April. b) SCGGA *Vineyard Pest & Disease Monitoring* document (includes pest biology, etc) draft by June 2000, Final by July 2000 c) Beta version of database by August 2000

Completing this task has resulted in having standard monitoring data collection and entry protocols in place for over half of the season. The monitoring methods for pests and beneficial predators were taught to nearly 100 growers at each GAM. The IPM Field Specialist used the standardized field data collection form for monitoring beginning June 1. UCCE Cooperators, IPM Field Specialist and Project Coordinator met 3 times with the database programmer to revise the data input form used as default in the programmer's database. The IPM Field Specialist and Project Coordinator met 5 additional times with the programmer to incorporate changes for data input and to finalize report outputs, including graph summaries of data.

Output (a) - Monitoring Techniques and the final **Field Data Collection Form** (Appendix #1) were completed in April and May, respectively. At the first **Management Team** meeting and at subsequent meetings with the UC Cooperators, a consensus was reached on the monitoring techniques that were to be used by the IPM Field Specialist for the targeted pests. The project licensed a custom vineyard pest monitoring database format (Microsoft Access® platform) that was similar to the one utilized by the Lodi-Woodbridge BIFS Project. The programmer modified it early in the season to meet project specifications. These modifications included a data input sheet, i.e. the Field Data Collection Form that reflected the pests and natural enemies targeted in Sonoma County – 2 phytophagous mites, 4 insects and 3 diseases. An early season (Appendix #2) and late season (Appendix #3) monitoring report format reflect the seasonality of specific insects and diseases. The *Vineyard IPM Log* also allows input for mite and insect natural enemies. Plant based assessments such as canopy damage, water status and crop phenology are also input. Weekly reports and season-long summaries were modified so that qualitative information such as percent leaf area damaged could be graphed in conjunction with quantitative data like percent leaves infested with grape leafhoppers (Appendix #4).

Output (b) - The **Vineyard Pest & Disease Monitoring** documents have been drafted. Monthly Grower Appellation Meetings and the IPM Field Day allowed for discussions of pest biology, monitoring techniques, control thresholds and reduced-risk pest control options. This information was recorded in Grower Appellation Meeting Notes (Appendix #5). The notes were mailed to all participants, posted on the SCGGA website and made available at the next GAM.

Rhonda Smith, UCCE Viticulture Farm Advisor and Lucia Varela, UCCE IPM Advisor collaborated to provide the **Vineyard Pest & Disease Monitoring** document (Appendix #6 *Draft*). A separate 3-fold description of the 4 major pests and their predators will be provided to growers who participate in 2001 GAM. After gaining feedback, the draft will be finalized, printed and laminated to provide a durable reference for growers in their vineyards.

Output (c) – The final version of the ***Vineyard IPM Log*** has been in use since December 2000. This database design reflects the data collection and reporting we feel are essential to a comprehensive vineyard IPM program for Sonoma County growers. In addition, countywide

GWSS monitoring was initiated by the SCGGA in 2000 using the *Vineyard IPM Log* to record monitoring results from over 70 growers each week. This program will be continued and expanded in 2001.

Task 2: MT decides upon topics to be covered at monthly Appellation Grower Meetings.

The **Management Team** met early to determine the schedule of topics to be covered at monthly **Grower Appellation Meetings**. A schedule was developed based on specific pests that were expected to appear during the season. This schedule was included in local newspapers, appellation newsletters and the first direct mail promotion (Appendix #7) sent to 1261 growers, wineries, vineyard managers and industry support businesses. The program topics were covered at each meeting, and time was also devoted to other problems growers/managers identified in their vineyards.

Each meeting included identification and monitoring demonstrations or exercises. An informal atmosphere at the meetings allowed for interaction and discussion among participants.

Objective 2: Promote adoption of vineyard field monitoring by example in PI vineyards

Task 3: In-house independent PCA's or field checkers monitor a total of four sites weekly using standard form.

In the first Management Team meeting, it was decided that the **IPM Field Specialist** – and not the in-house PCA/field checker - would monitor each of four vineyard sites (one for each P.I.). This was done weekly utilizing the previously developed **Monitoring Techniques** and the **Field Data Collection Form**. Within seven days, the data were recorded in the database. Pest control measures -- if any - were decided upon by the respective P.I. at each site and were based upon the IPM Field Specialist's weekly monitoring results. The P.I. and IPM Field Specialist communicated weekly to discuss action thresholds and management options. The monitoring data, decision-making process and pest control choices for the previous four weeks were reviewed step-by-step at each site's monthly GAM.

In meeting this objective we now have a full season of consistent, standardized monitoring reports (Appendix #8) that were used to document pest incidence and impact on the canopy. These reports very clearly demonstrated actual pest pressures and visibly indicated whether or not a control tactic – which could include pesticides – was warranted.

The Sonoma County Grape Growers Association promotes vineyard monitoring and is now offering the monitoring protocol and the *Vineyard IPM Log* (including the field data entry form and report forms) to growers. Consistent data reporting will allow data to be summarized for a region of the county. Information collected from the four demonstration sites in 2000 is stored in the *Vineyard IPM Log*. Growers who have seen the data reports and summaries have expressed interest in adopting the monitoring and data entry protocols in 2001. Returned evaluation forms (Appendix #9) and presentations of the program at the Sonoma County Grape Growers Association's Dollars and $ense Seminar, Sonoma County Grape Day, and at Sonoma County regional and championship pruning contest events indicate that 50 growers are interested in participating in the program in some capacity next year.

Eighty-five growers who attended the final GAM were given an evaluation form for the IPM program. Nearly half (48%) were returned (Appendix #10). Forty-nine percent of those who responded increased monitoring (either by themselves or their vineyard manager) after attending the GAM and 54% feel the meetings helped them to better understand monitoring results and recommendations made by their vineyard manager.

Task 4: Each PI (site) hosts 4 monthly Appellation Grower Meetings by personally inviting 8-25 growers/managers or PCAs from adjacent vineyards.

In addition to each PI inviting growers/managers to the monthly **Grower Appellation Meetings**, each meeting was announced in local newspapers and appellation newsletters. Direct mail invitations were sent to growers and vineyard managers, and information was included in SCGGA's newsletter, website and in other Sonoma County events websites. Coverage was excellent and included the entire county. (Appendix #11)

As a result of the widespread coverage, attendance at the GAM exceeded our expectations. Total monthly attendance ranged from 85 to 114 with the average total monthly attendance at 96. A core group attended each meeting, but new people signed in at each meeting. Our mailing list grew from 96 people who attended the first GAM to a total of over 230 names that had either registered for or attended a meeting. These 230+ people have received notes from each month's GAM that summarized monitoring techniques, discussions concerning thresholds, and appropriate management strategies. In addition to growers and vineyard managers, winery grower relations managers attended the GAM. These individuals work with contracted growers to implement management practices the wineries' require to ensure fruit quality. Winery grower relations personnel provide an additional avenue for reaching growers with IPM techniques because they interact with growers in the county and throughout the state.

Task 5: Project coordinator samples for sugar concentrations 3 weeks prior to anticipated harvest date.

The IPM Field Specialist monitored for sugar concentrations prior to anticipated harvest date. While not a controlled experiment, the test vineyards reached harvestable sugar levels consistent with other vineyards in the area (Appendix 12). IPM should not delay maturity or reduce yields and these observations are consistent with those expectations.

Task 6: Hold Field Workshop in August 2000 to describe project and outcomes. Describe field monitoring techniques and standardized monitoring form; discuss the use of alternative pest control practices utilized; introduce and demonstrate monitoring database and its applications (Beta version). Solicit grower and PCA support for providing monitoring data for database next season; solicit grower and PCA commitment to monitor acreage in the prescribed format and hold Appellation Grower Meetings the following year.

The IPM Field Day was held on August 23, 2000, at the Santa Rosa Junior College Shone Farm. About 150 people were in attendance for the IPM Field Day. A presentation by Rhonda Smith clearly defined Integrated Pest Management concepts and the IPM Field Specialist and P.I.s provided an overview of pest levels and damage assessments that occurred during the growing season, their IPM programs and alternative pest control practices each utilized. These conversations between the PI and IPM Field Specialist are models for this project, helping the decision maker understand monitoring information presented by his or her PCA/field checker to assess pest risks and then make management decisions. This project provides growers with knowledge about alternative pest control tactics to discuss with their winery or winery grower relations personnel. The *Sonoma County Vineyard IPM Log* was promoted and demonstrated at the Project Table. Attendees were given an opportunity to tour an organic vineyard that is managed by Santa Rosa Junior College.

Attendees were also able to visit informational tables in a "trade show" format. The SCGGA provided association and membership information. Department of Pesticide Regulation personnel provided handouts on FQPA, Prop 65 and DPR priorities and programs and were available to answer questions from growers. Lucia Varela, UCCE IPM Advisor shared glassy-winged sharpshooter specimens, posters, identification brochures, and answered questions about this vineyard pest. The IPM Field Specialist and Project Coordinator shared complete *Vineyard IPM Log* binders for each block that was monitored and Field Data Collection Sheets, and they

answered questions about the IPM Demonstration Grant Project. The binders included the full season of weekly monitoring reports, pest pressure graphs and summaries and vineyard information for each block. The Sonoma County Wine Library had examples of resources available to grape growers both at the library and for purchase. These tables were busy for 1.5 hours following the presentations.

Task 7: Write grant Progress Report and Year 2 Proposal

Grant Progress Report is complete. Year 2 Proposal was submitted prior to October 6, 2000.

Objective 3: Promote the use of alternative materials to control Phomopsis cane and leaf spot, Botrytis and mites.

Task 8: Document the efficacy of reduced risk pest management materials and methods and discuss at Appellation Grower Meetings.

Correct identification of Phomopsis cane and leaf spot was the cause of considerable discussion at the first two **Grower Appellation Meetings**. Putative Phompsis cane and leaf spot samples were sent to Dr. Leavitt for positive identification, but the tests were not completed. Mancozeb (Dithane®) and maneb were not used on any demonstration vineyards. In addition, growers were discouraged from using these products for either Phomopsis or Botrytis. Growers were also encouraged to discontinue use of Omite®. Considerable time was spent teaching attendees how to identify and monitor for the presence of mites and their predators. Alternatives to Omite®, including stylet oil and cinnamaldehyde were discussed in detail. Samples of Willamette and Pacific mites and predatory mites and insects were available for growers/managers to identify. Predator/prey ratios were discussed in detail and included in follow-up notes. Introducing predacious mites for biological control was a topic of discussion at each meeting site at least once during the season. Growers who had tried introducing predatory mites related their experience and one PI introduced predatory mites at a different vineyard this season. His experience was discussed at the meetings as well.

Pest management decision-making is seldom simple. Decisions early in the season may affect later decision-making. Three of the four demonstration blocks applied no miticides this season. An example of the difficulty of vineyard management decisions occurred in one demonstration vineyard. Early in the season, Willamette mite populations were quite high and the P.I. assessed monitoring data, site conditions and potential vine canopy loss and considered several control options. Ultimately, he decided the vineyard block required chemical mite control. An early season application of a reduced risk material – stylet oil – was selected. This application reduced Willamette mite populations in all but the most stressed areas of the vineyard. The P.I.'s decision process and rationale for the selected mite control tactic was discussed with growers at subsequent Grower Appellation Meetings allowing them to hear why he made the choice he did. The P.I. and IPM Field Specialist later discussed implications of increasing Pacific mite populations in the most stressed areas of the same block. Stylet oil was no longer an option because it would leave a residue on the grape that affects cluster appearance and this concerned the winemaker. The decision was made not to treat and hope populations remained at tolerable levels. The populations continued to increase while fruit ripening was occurring. It was decided that a spot treatment of the miticide, Vendex®, was necessary in order to control the Pacific mite populations. It is vital to note the management decision was made after very serious considerations of control options. A blanket application of Valero® or AgriMek® was not made over the entire vineyard. Neither product had demonstrated good knockdown control of high mite populations in other Sonoma County vineyards in 2000. Thus, Vendex, a product known for excellent knockdown of high mite populations, was selected for treating selected areas of the vineyard. The amount of Vendex used was reduced through spot treatment rather than treating the entire vineyard. Based on this year's experience, the P.I. anticipates mite pressures in this

vineyard next year. Additional stylet oil applications before veraison will be considered in order to suppress mite populations longer, thereby maintaining a healthy leaf canopy and avoiding the need for a rescue miticide treatment.

According to the written grower evaluations (Appendix #13) as well as verbal feedback from several growers, pest and predator identification and hands-on exercises were two of the most valuable parts of the meetings. Many indicate better understandings of mites, beneficial insects and the impacts of cover crops resulted from the discussions and demonstrations at the monthly meetings. Of the 41 evaluations returned, 56% changed management decisions based on information and discussions at the GAM. (See Appendix #14 for specific comments.)

Objective 4: In Year 2, increase the numbers of acres that are being monitored using the standardized monitoring form.

Task 9: Promote the use of the SCGGA Pest & Disease Monitoring Database by grower members. Based on success and utilization to date, publicize the SCGGA Vineyard Pest & Disease Monitoring document and database in trade journal articles. Continue to provide project updates to SCGGA membership in the SCGGA News and the UC Cooperative Extension Viticulture Newsletter. Present a demonstration of the database at the SCGGA Dollars & Sense Seminar in January 2001.

The *Vineyard IPM Log* has been promoted to both members and non-members at GAM throughout the summer by distributing monitoring reports and graphs to attendees. The *Vineyard IPM Log* was demonstrated at the SCGGA Annual Buyers and Sellers BBQ in May, at the IPM Field Day in August, and at the Dollars and $ense Seminar in January. Fifty growers have indicated an interest in participating in next year's program, and several expressed interest in contributing to the *Vineyard IPM Log* in 2001 by monitoring and making the data available for input. Our primary goal remains to increase the number of growers who consistently monitor their vineyards and we encourage them to use our standardized field data collection form.

Data collected next season will expand the *Vineyard IPM Log* and fill a missing link for many growers. Although 35 (85%) of growers who responded to the final evaluation stated they monitored their vineyards regularly this season, only 17 keep written records. Discussions at GAM have recognized the value of recording historical data on vineyards.

The SCGGA newsletter has published project updates in recent issues and the fall issue included an update from Project Coordinator. The UC Cooperative Extension Sonoma County Viticulture Newsletter included a grant progress update article and Vineyard IPM Log data summary information. Presentation or posters about the IPM program have been made at Dollars and $ense Seminar, Sonoma County Grape Day, and at 4 regional pruning contests and at the pruning championship. Growers were asked to attend GAM and to monitor their vineyard and report results for inclusion in the *Vineyard IPM Log.*

Task 10: (Similar to Task 4) Year 2001 - Each appellation site hosts 4 monthly Appellation Grower Meetings by inviting 8-25 growers/managers or PCAs from adjacent vineyards.
This task was included in the renewal proposal. We see no obstacles to prevent this from being accomplished in 2001.

Task 11: Provide phone, email and on-site support for individuals with questions concerning the use of the monitoring techniques, data collection form or database.
This task was included in the renewal proposal. Support protocols will be developed for 2001 participants.

Task 12: Write final report on project.
This report completes the task.

Appendices

1. **Field Data Collection Form**
2. **Early Season Pest Monitoring Data Report**
3. **Late Season Pest Monitoring Data Report**
4. **Grape Leafhopper Count and Damage Graph**
5. **Grower Appellation Meeting Notes**
6. **Vineyard Pest and Disease Monitoring Documents**
7. **Grower Appellation Meeting Initial Promotional Flyer**
8. **Standardized Monitoring Reports**
9. **DRP Grant/IPM Project Feedback Form**
10. **IPM Meeting Evaluation Summary**
11. **Press coverage of Grower Appellation Meeting Examples**
12. **Brix Data Prior to Harvest**
13. **Evaluation Feedback 2**
14. **Evaluation Feedback 1**

SCGGA IPM PROJECT 2000 Appendix #1

Field Data Collection Form

Grower _____

Sample Date _____ Block _____

Vineyard Sector				
Pest				
Grape Leafhopper (nymphs/leaf)				
Hopper Leaf Damage 0 - none 1 - lt. 2- lt. to mod. 3 - mod. 4 - app. thresh 5 - Rx needed	0-5	0-5	0-5	0-5
Williamette Mite (% infested leaves)				
Pacific Mite (% infested leaves)				
Mite Predators (% leaves with predators)				
Mite Damage Rating 0 - none 1 - lt. 2- lt. to mod. 3 - mod. 4 - app. thresh 5 - Rx needed	0-5	0-5	0-5	0-5
Thrips (% count shoots)				
Powdery Mildew 0 - none 1 - lt. 2- lt. to mod. 3 - mod. 4 - mod. to sev. 5 - severe	0-5	0-5	0-5	0-5
Botrytis 0 - none 1 - lt. 2- lt. to mod. 3 - mod. 4 - app. thresh 5 - Rx needed	0-5	0-5	0-5	0-5
Phomopsis 0 - none 1 - lt. 2- lt. to mod. 3 - mod. 4 - app. thresh 5 - Rx needed	0-5	0-5	0-5	0-5
Canopy Water Status G = Green DG = Dull Green Y = Yellow D = Defoliating				
Trap Number	1	2	3	4
Blue-Green SS				
Glassy-Winged SS				

Phenology
(Bud Break Bloom Fruit Set Bunch Close Veraison)

Notes:

SCGGA Phone 707-206-0603, Fax 707-206-0313

SCGGA Pest Monitoring Data Sheet: Block Name: *D*

Grower: *John Clendenen* Ranch Name: *Adam's Ridge Vineyard*

Sample Date: *4/11/00*

Pest	Block Monitoring Areas: Northeast	Southeast	Southwest	Northwest
Grape Leafhopper: (nymphs/leaf)	0	0	0	0
Hopper Leaf Damage:	None	None	None	None
Willamette Mite: (% Infested leaves)	14	100	30	30
Pacific Mites: (% infested leaves)	0	0	0	0
Mite Predators: (Willamette mite)	0	36	0	0
Mite Leaf Damage:	None	None	None	None
Thrips: % count shoot	0	0	0	0
Powdery Mildew:	None found	None found	None found	None found
Botrytis:	None found	None found	None found	None found
Phomopsis	None found	None found	None found	None found
Canopy Water Status:	Green	Green	Green	Green
Trap Number:	1	2	3	4
Blue-Green Sharpshooter:	0	0	0	0
Glassy-winged Sharpshooter:	0	0	0	0

Phenology: Bud break

Weeds: no comment

Notes: Treated 4-7& 4-8 with JMS stylet oil for mites and as first mildew application. Southeast knoll with minor GLH feeding from overwintered adults moving into vines.

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PO Box 1959, Sebastopol, CA 95473
Ph: 707 527 0200

SCGGA Pest Monitoring Data Sheet:

Block Name: *RCHR*

Grower: *Pete Opatz*

Ranch Name: *Reedy Ranch*

Sample Date: *7/6/00*

Block Monitoring Areas

Pest	Northeast	Southeast	Southwest	Northwest
Grape Leafhopper: *(nymphs/leaf)*	1.8	0.9	1.3	1.3
Hopper Leaf Damage:	Light to moderate	Light to moderate	Light to moderate	Light to moderate
Willamette Mite: *(% infested leaves)*	30	20	10	0
Pacific Mite:	0	0	0	0
Mite Predators:	0	0	0	0
Powdery Mildew:	None found	None found	None found	None found
Bunch rot:	None found	None found	None found	None found
Canopy Water Status:	Green	Green	Green	Green

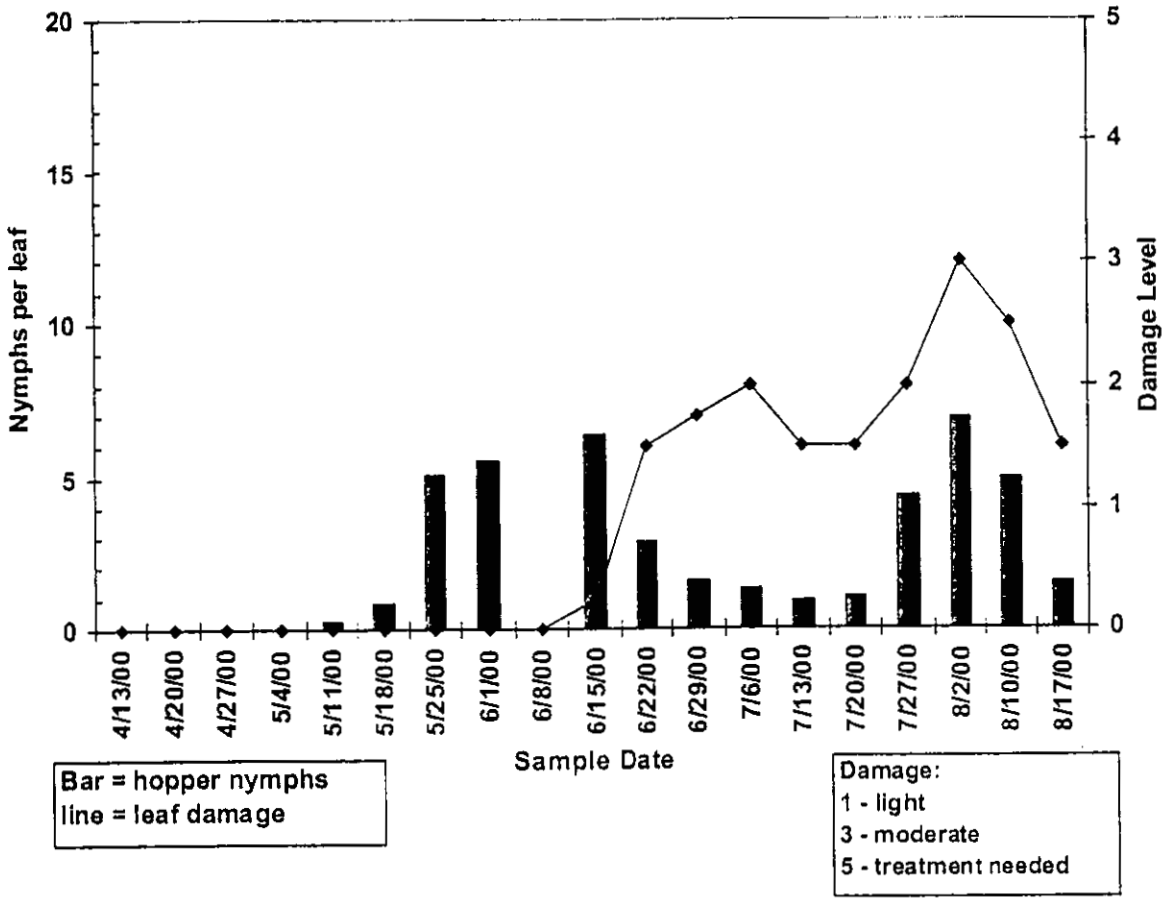
Phenology: Bunch close

Notes: Minute pirate bugs, lacewings, anagrus and spiders present.

Sonoma County Grape Growers Association
PO Box 1959, Sebastopol, CA 95473
Ph: 707 527 0200

Vineyard Name: *RCHR* **Grower:** *Pete Opatz*

Hopper Counts and Leaf Damage



SCGGA IPM Meeting Notes: May 1,2,3

Today's Focus Points

Phomopsis

- What – Phomopsis viticola is chronic fungus infection. Variable amount of damage depending on variety, amount of infected wood in vineyard, and season. Worst problems with CH and PN in our area.
- Spores infect green tissue, (spring green tissue symptoms)
- If the infection survives, it develops into pycnidia (spore producing structures) over the winter. Causes spurs to look white.
- In spring, heavy rains cause pycnidia to release spores, which are splashed on to green tissue, where they germinate and cause infection if wet conditions persist for many hours. Causes stunting, reduces vigor and yields. Infected canes don't harden off as well and become brittle.
- Materials used during the growing season are preventative. This includes maneb (dithane) and mancozeb. We are looking at alternatives to dithane and mancozeb because they are on the State of California's Proposition 65 list and are being reviewed as possible carcinogens. Sulfur and copper have some protective activity. Strobilurins (e.g. Abound, Flint, Sovran) are being tested for clean up. Abound currently registered for phomopsis, but we are not certain if it cleans up or just protects like sulfur with mildew.
- Some new research is showing promising results using up to 30 gpa lime sulfur delayed dormant treatment in reducing Phomopsis the following season. Don't know if it is killing pycnidia and/or spores.
- Take home message is that it accumulates rather slowly in a vineyard. Not all spring infections on shoots will survive to become bleached spurs. We don't have actual economic thresholds, but use judgement to evaluate bleached spurs and spring symptoms. Train pruning crews to selectively remove bleached spurs, and use growing season materials as protectants, not eradicants.
- QUAILIFIERS: Vineyards with phomopsis-like leaf and shoot symptoms but no obvious spur symptoms and no complaint from grower about phomopsis problems despite fairly regular occurrence. Difference in varietal susceptibility, difference in growing area, and Current conversations with George Leavitt (Madera Farm Advisor) re. Possible other fungi that cause look-alike spur bleaching symptoms and spotting. Stay tuned for results of samples from our vineyards being tested by George.

Willamette Mites

- Seeing some populations and light to moderate damage now on lower canopy. Looks like some one rubbed the green off the leaf. Later symptoms will be russetting, then bronzing. Displays.
- Pacific mites later in some areas. At the end of the canopy.
- Look for predaceous mites. Use a 10x or better hand lens. They are flatter, shinier and spotless. Don't confuse with Willamette mite nymphs. They hide in the "V" where the main leaf veins meet the petiole, or in minor leaf veins if a number of Willamette mites present.
- Predaceous mites can control. Presence absence sampling and ratios. Need better ratios for Willamette (1:2) than Pacific (1:5).

- Weekly monitoring of minimum 10 leaves per quadrant or area of interest.
- Note damage: location and intensity (e.g. light damage lower canopy, then light damage lower and mid-canopy). This will help you be predictive in future years.
- Soft materials (Valero, soap, light oils) require earlier application for management. My experience is 50% to 80% control. Easy on beneficials. Also affect GLH and mildew. Agrimek (abemectin) by Novartis recommended early application also. 12 hour REI, 28 day PHI. Resistance has developed in other crops, so use good resistance management techniques (like using DMI's for mildew)
- Sulfur dust may interfere.

"Heads up"

A. Grape Leafhopper-OW adults now. Nymphs soon. Count weekly. Select leaves with the most GLH damage. Note damage location and intensity.
B. Thrips – confirm presence. Percent shoot tip burn on shoots that will be left after thinning. Developing spurs / cordons and slow growing = more concern. Later season need to distinguish laterals damage from main canopy.
C. Botrytis – watch for leaf and shoot strikes.
D. Powdery Mildew- keep an eye out for mildew on leaves as canopies become dense.

Sonoma County Grape Growers' I.P.M. Project

Phomopsis Cane and Leaf Spot

(*Phomopsis viticola*)

Phomopsis cane and leaf spot is caused by the fungus *Phomopsis viticola*. Although it is generally not of economic importance, it can cause significant yield and vigor reductions if favorable conditions have prevailed for a number of years. Chronic infections cause yield losses by stunting or killing new shoots, and reducing the vigor and productivity of previously infected wood. Infected wood is also less cold hardy and canes are more prone to break because they become brittle. The amount of damage depends on the amount of disease present, weather conditions and the susceptibility of the variety. More phomopsis has been observed on chardonnay and pinot noir than on other varieties in our area. Over the past few years rainy spring weather has provided good conditions for phomopsis to build up and some growers may want to initiate a management program to reduce losses.

DISEASE CYCLE AND SYMPTOMS: The fungus overwinters as pycnidia (the spore producing structures) on bark, canes and spurs. Infected canes and spurs look much whiter than uninfected wood. Spring rains after budbreak splash spores on to new shoots and leaves where germination occurs if free water is present for many hours. Phomopsis is more severe when there are very young unprotected shoots and leaves exposed to continuous rains for several days, and temperatures are between 66°F and 77°F.

Infections are heaviest on the lower nodes of shoots and begin to appear about 3 to 4 weeks after rain. The first symptoms usually seen are small yellow spots with dark centers on the leaves. As the leaves expand, they will take on a puckered, tattered appearance and not reach full size. Cold temperatures, hail, eutypa and drift by contact herbicide may cause similar symptoms. Dark spots may also be seen on the shoots. As the shoots lengthen, these spots may turn into longitudinal cracks and eventually give the base of the shoots a scabby appearance. Very small dark spots may also be seen on leaf and cluster stems.

Phomopsis becomes inactive with warm dry weather and the rest of the normally growing canopy masks its early damage. New pycnidia develop on one year old wood during the winter, causing the thin bark to separate from the new wood. This gives infected spurs and canes their characteristic bleached look. Please refer to the UC Grape Pest Management manual for good photographs of all these symptoms.

MANAGEMENT: ***PRUNING.*** One of the key aspects for an integrated approach to managing phomopsis is to remove infected wood at pruning. Infected spurs and canes are the primary source of inoculum in the vineyard. A good I.P.M. program will focus on removing as much infected wood as is prudent. If phomopsis pressure is very high, dead wood may also be removed since phomopsis survives and produces spores on wood that it has already killed. The increased pruning costs should be balanced against the chronic, progressive nature of the disease and whether favorable conditions are likely to occur.

FUNGICIDES. Chemical management can be broken down into two categories: dormant sprays and protective treatments after budbreak. New research has shown promising results in using lime sulfur as a delayed dormant treatment.

Post-budbreak treatments need to be applied before rains. Sulfur and copper have some protective activity, but do not prevent growth once phomopsis has become established. Maneb (dithane) and mancozeb are also protectants, but there are concerns about their use. They do not prevent growth once it has started. Since the rainy conditions that favor phomopsis spore release also prevent growers from getting in to their fields, preventative treatments ought to be considered.

Maneb and mancozeb are being reviewed under Proposition 65 as potential carcinogens. Fortunately there is a new class of fungicides called strobilurins, such as Abound, that looks very promising as fitting well into an I.P.M. program for phomopsis management.

OTHER CULTURAL PRACTICES. Phomopsis can be introduced on plant material coming from nurseries or other vineyards. Inspecting new material for symptoms can reduce inoculum or prevent initial introduction of the disease. Also, growers who use overhead sprinklers for frost protection should be aware that this could contribute to phomopsis growth.

SCGGA June IPM Meeting Notes - Focus Points - Grape Leafhopper (GLH)

Scouting for nymphs

- GLH overwinters in brushy or weedy areas. Earlier this season, you should have looked for where overwintered adults came in by noting feeding damage.
- Scout these areas for nymphs beginning before bloom. Scout weekly.
- Difference between first instar (stage) nymphs and thrips – thrips curl and move like a snake; leafhoppers move jerkily like a toy soldier.
- Select leaves with most damage. Normally will be on one side – east or north (too hot on west and south), unless fairly cool site.
- Begin 5 vines in.
- Choose 10 leaves per area of interest. Dividing vineyard into quadrants usually works well.
- Count all nymphs and divide by ten to get the average number of nymphs per leaf.
- The last nymph stage sheds its skin. Only this one sticks to the leaf. Seeing skins (exuviae), = *peak hatch*. This is the time to do leaf removal or treat with a soft pesticide (e.g. soap, oil, Valero®).

Scouting for natural enemies

- Look for natural enemies – lacewings, minute pirate bugs, 6-spotted thrips, spiders, anystis mites.
  Check for 6-spotted thrips and minute pirate bugs in blooming cover by putting a piece of paper on the ground. Grab the stalks of flowering plants, hit flowers with free hand to dislodge bugs onto the paper.
- *Minute pirate bug* adults: about 1/8" long, with three black triangles on their back. Nymphs are smaller and completely pink-orange.
- *6-spotted thrips*: about 1/16" long, 6 spots on their back and can look striped because they are so small.
- *Anystis mites*: red and run quickly, often in circles as if they've had too much coffee. Size- up to 1/8".
- *Anagrus*: a wasp that parasitizes leafhopper egg. GLH eggs are inserted under the skin of the leaf.
  Check leaves for parasitization by looking for eggs with a white blob in middle. As the wasp matures in the egg, you can see its two eyes vs. GLH one eye. When the wasp leaves, it makes a neat exit like a porthole. When a GLH emerges it just leaves a little slit, like it slid out of bed and pulled the sheets up. These are not easy to see, but with practice you can do it!
- Make notes on same sheet as nymph data.

Monitoring canopy damage

- Determine how much damage canopy can take. Look at the crop and canopy on one shoot. Imagine hedging that shoot. How far down can you go and still have a balanced shoot? If the shoot has 20 leaves and you "hedged" 2, you can tolerate 10% damage on that shoot. Do that for several more shoots until you have an idea of what overall damage the block can take.
- Use leaf damage model handout to help estimate how much damage leafhoppers are causing.
- Keep track of damage, using estimates based on whole canopy.
- The person who buys your grapes needs to be aware of your approach, and kept in the loop. Invite them out to look at and discuss the assessments, perhaps now to get on the same page, and at veraison regarding what is a balanced vine. Later, if damage is accumulating but you feel treatment can wait because the vines are actually still in balance, you may invite them out again. Education is a process.

Management Strategies

- If damage threshold is approached, reassess based on number of nymphs and adults present. You can estimate how much more damage the canopy is likely to sustain. Assess how much longer the crop will be on the vine. You can treat before you reach a critical threshold if it is obvious that there are enough leafhoppers to cause more damage than will be tolerable, or if pickers will not be able to tolerate.
- Early season, if there are many natural enemies and anagrus is present, do not treat unless very high populations on a canopy that cannot take any damage. This is rarely needed.
- Leaf removal can have some effect, but it will not eliminate all the leafhoppers.
- Exuviae indicate proper timing for leafing or treatment if needed for first brood.
- If a soft pesticide is used, e.g. soap, oil, Valero®, your strategy will depend somewhat on a more prophylactic approach since these materials are not particularly effective on adults, and don't eliminate nymph populations either. If you have a known hotspot, your canopy damage tolerance is low, there is a significant population of nymphs, and no natural enemies are observed, then treatment is indicated.
- Time treatment for maximum nymph emergence, i.e. when exuviae first appear.

ANNOUNCING THE FIRST

Sonoma County Grower IPM Field Day

August 23, 2000 3:00 – 5:00

Shone Farm – 6225 Eastside Road

- Vineyard pest problems and protection strategies recap – results from four appellations
- What worked – What didn't work
- UC Extension Experts and Vineyard Managers involved in our IPM Grant project will be available to talk about their Integrated Pest Management programs with you.
- Full demonstration of the IPM Database used throughout the summer to compile vineyard information.
- View the vineyards at Shone Farm including organic and conventional vineyards.
- Hors d'oeuvres will be served. Bring a bottle of wine to enjoy and share with other grape growers of Sonoma County.

Sonoma County Grape Growers Assoc.
DPR Grant/IPM Project
5000 Roberts Lake Road, Suite A
Rohnert Park, CA 94928

IPM Meeting Schedule (CE Hours approved)

Our second set of IPM Meetings had a super turnout!! Come join us in our third of a series of four summer meetings to discuss grape growing, reduced-risk pesticide options and what's happening in your vineyard.

	Russian River Duff Bevill Martini Ranch 2043 Laguna	Sonoma Valley Joe Votek Rancho Salina 17505 Mallard	Dry Creek John Clendenen Adams Vineyard 755 Canyon Rd.	Alexander Valley Pete Opatz Reedy Ranch 2655 Hwy 128
Focus: Powdery Mildew and continued discussion on Grape Leafhopper and Mites*	June 26 9:15a.m.	June 27 9:15a.m.	June 28 8:15 a.m.	June 28 11:15 a.m.

*We will have demo and discussion to distinguish difference between Williamette and Pacific Mites. Registration, coffee and snacks begin on the hour. For more information, call SCGGA at 206-0603 or e-mail: azevedo@sonic.net.

SCGGA IPM Meeting Notes: June 26, 27, 28

Next IPM Meetings: Russian River Valley – July 31 9:15 Sonoma Valley – August 1, 9:15
Dry Creek Valley – August 2, 8:15 Alexander Valley – August 2, 11:15

Focus Points:

- **Balance** – two meanings:
  1) A winegrowing concept meaning the right amount of canopy for the crop
  2) A pest management concept that there are a combination of factors influencing the relationship between a pest and its host.

- **Powdery Mildew** – Good canopy management is critical, as is a good spray program. AQ10 (manufactured by Ecogen), Procure, Kaligreen, strobilurins, sulfur, and DMI's are materials used.
- According to the Ecogen representative, AQ10 is not compatible as a tank mix with any other fungicide, including Kaligreen.

- **GLH (The Next Generation)**
  Look for *anagrus exit holes.*
  Nymph populations low, look for increase over next few weeks as second generation begins.
  Feeding damage into mid-canopy.
  Damage tolerance assessment of individual canes to establish general canopy damage tolerance.
  Don't remove brush for managing overwintering GLH.
- *General Management philosophy* might be to cause maximum Leafhopper unhappiness (encouraging predaceous and anagrus, timing of leaf removal, soft multi-purpose treatment if warranted i.e. oil, soap, Valero)

- **Pacific Mites vs. Willamette Mites**
  Timing – Willamettes usually appear earlier in the season.
  Leaf Damage – Willamettes generally begin on more basal and interior leaves.
  Webbing – Willamettes have less webbing. Pacific mites will often be seen climbing in the webbing they create, and eggs will be suspended in the webbing.
  Eggs – Willamettes seem to have fewer eggs.
  Front legs – If the front legs of adult mites are compared, Willamettes' are white; Pacifics' are light brown to reddish.
  Ratios – Predaceous mites to Willamette mites, 1:2 or better is good
  Predaceous mites to Pacific mites, 1:5 or better is good

- **"Heads up":**
- **Botrytis** – *check clusters in denser fruit and canopy zones for beginning infections.* Good canopy management is one of the most important Factors in limiting botrytis infections.

- **Resistance:** *"Tarnishing of the Silver Bullet"*
  For control of "zero tolerance" pests, like mildew and botrytis, prevention by prophylactic treatments are made. If the problem appears, eradication is the goal, often with high rates and multiple applications. Some resistance to the DMI fungicides occurred due to their exclusive use, and the high selection pressure thus put on powdery mildew. The lesson is that maximum rate, back-to-back applications of the same material (or materials with the same mode of action) *are a recipe for creating a resistant pest population.* The new botrytis materials Elevate and Vanguard have different modes of action, so are good materials to alternate.

Bring pest samples and questions for this meeting

This program sponsored by a grant from the California Department of Pesticide Regulation

PLAN TO ATTEND

SONOMA COUNTY GROWER IPM FIELD DAY

AUGUST 23, 2000 3:00-5:30

SHONE FARM – 6225 EASTSIDE ROAD

3:00 – REGISTRATION
3:15 – PRESENTATION –NICK FREY – IPM DEMONSTRATION GRANT RECAP
LAURA BREYER AND VINEYARD MANAGERS – IPM STRATEGIES THROUGH THE SEASON
RHONDA SMITH – IPM PROCESS AND PRINCIPLES
4:45 – TRADE SHOW AND SOCIALIZE, VINEYARD TOURS

Hors d'oeuvres will be served. Bring a bottle of wine to enjoy and share with other grape growers of Sonoma County.

R.S.V.P. by August 18 to SCGGA – 206-0603

SONOMA COUNTY GRAPE GROWERS ASSOCIATION
DPR GRANT/IPM PROJECT
5000 ROBERTS LAKE ROAD, SUITE A
ROHNERT PARK, CA 94928

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SANTA ROSA CA

IPM MEETING SCHEDULE: (CE Hours Approved)
Laura Breyer, PCA and vineyard managers will discuss:

- **Pierce's Disease and blue-green sharpshooter**
- **Phaeoacremonium – "black goo"**
- **Summary to date of vineyard block IPM Program**
- **Strategy to harvest**

Russian River Duff Bevill Martini Ranch 2043 Laguna	Sonoma Valley Joe Votek Rancho Salina 17505 Mallard	Dry Creek John Clendenen Adams Vineyard 755 Canyon Rd.	Alexander Valley Pete Opatz Reedy Ranch 2655 Hwy 128
July 31 9:15a.m.	August 1 9:15 a.m.	August 2 8:15 a.m.	August 2 11:15 a.m.

Bring pest samples and questions for this meeting

Laura and UC Extension Experts will be available to answer your pest concern questions.

The bluegreen sharpshooter and Pierce's disease

-Pierce's disease - caused by the bacteria Xylella fastidiosa which resides in many plants, primarily in riparian areas.
-Bluegreen sharpshooter vectors disease to grapevines. BGSS overwinters as adult in riparian area. Moves in to vineyards in spring. Lays eggs, dies. Eggs hatch and second generation begins about now. Cyclical in nature.
-Young vines, chardonnay and pinot are most susceptible.
-Symptoms begin showing up about now. Leaf scorch, persistent petioles, complete cluster raisining, irregular cane maturity, short zig-zag shoots, pattern around riparian area. Send to lab for positive ID. Contact SCGGA for a list of labs that do testing.
-Symptoms are similar from measles, sunburn, eutypa, armillaria, etc
-Begin trapping early in spring. Set traps in the edge of vineyard every 100', where vines are dying and lush vinca (periwinkle), blackberries, wild grape, mugwort etc. Change traps every one or two weeks. Number traps (I use a permanent marker right on the trap). If there are a lot of traps, make note on vineyard map. Record the number of BGSS caught weekly, and the date. Remove BGSS from trap if trap isn't changed. More than one BGSS per day indicates movement into the vineyard. Some people choose to treat vineyard, usually with Provado®.
-Treating in the riparian area is allowed with special section 18 permit. Dimethoate® is the only material registered for this purpose. Treatment must occur when sharpshooters are active, but before they move into the vineyard. Place traps directly in the riparian area. Do not use dimethoate in the riparian area if you are not using traps to time the application. Dimethoate is an organophosphate and therefore a non-selective material. Treat only the plants that are harboring BGSS, not a blanket treatment.
-If a vineyard is plagued by consistent heavy PD pressure from a riparian area, one may want to consider riparian vegetation management. This approach replaces the few specific choice breeding plants of the BGSS. It is costly and time consuming, but has been very effective so far. It requires working with the Dept. of Fish & Game.
-Severe pruning (some success, still experimental without firm recommendations)
-Possible therapeutic treatments, long-term research looking into resistance.

Young grapevine decline (Phaeoacremonium spp. and Cylindrocarpon spp.)

-Has been in old vineyards as measles, no real problem. Shows up and goes away.
-Young vineyards more severe. Became known as black goo. Not in every new block, but where it is affecting vines it is often serious. It is possible that it can be present, but not cause decline, as in our older vineyards.
-Slow wood rot fungi are the culprits, but just which ones are still being investigated. *Phaeoacremonium spp.* is confirmed and other genera being investigated in Italy. This disease is also known as esca.
-New rootstocks, nursery practices, viticultural practices ("child labor" – large crop on young vines, water stress), new strains of fungi, airborne spores
-Symptoms include seriously declining vigor in young vines, til collapse and die-back from the tips down. Other symptoms - vascular streaking, and black gummy spots in a cross section.

Volunteer insectary plants – importance in providing lacewings, anagrus pollen and nectar. Small flowers and extra floral nectaries for anagrus. Like a free In-n-Out for bugs – 6-spotted thrips, MPB's, spiders get fat and cruise the vines? Research has shown repeatedly that there is no relation to cover crops and more predators in the vines, but there is a relation between cover crops and reduced pest populations in the vines. Cover crop can mean something planted, or allowing volunteers to do the job. These late season bloomers provide an important link for the good bugs that depend on the pollen and nectar as adults. The anagrus, lacewings, minute pirate bugs and 6-spotted thrips can help with late season mite and GLH problems. New player – minute staphylinid beetle.

IPM/DPR Grant
Sonoma County Grape Growers Association
5000 Roberts Lake Road, Suite 100
Rohnert Park, CA 94928

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Join us Aug. 23rd!!!

Sonoma County IPM Field Day

You are invited to:

THE SCGGA INTEGRATED PEST MANAGEMENT GROWER FIELD DAY

THE CULMINATION OF THE 2000 DPR DEMONSTRATION GRANT PROJECT

COME, LEARN MORE ABOUT IPM- WHAT WORKED, WHAT DIDN'T WORK IN VINEYARD BLOCKS THIS SEASON

Presentation 3:15—4:15
Organic vineyard tour and social hour follow presentation
Information tables will be open after presentation: DPR, SCGGA, UC Extension/GWSS, Sonoma County Wine Library, Grower Resource Table

Hors d' oeuvres will be provided

Bring a bottle of Sonoma County Wine to share after the presentation

Date: Wednesday, August 23

Time: 3:00 Registration begins

Location: SRJC Shone Farm
6255 Eastside Road
Forestville

This event funded in part by the Sonoma County Grape Growers Association and a grant from the California Department of Pesticide Regulation

Appendix #6

Vineyard Pest and Disease Monitoring Documents

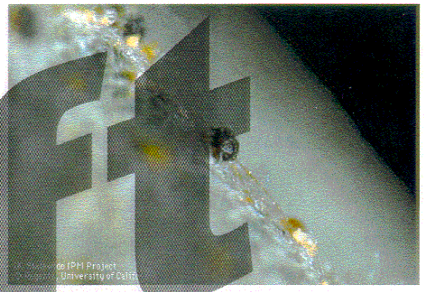
These documents are draft documents that will be shared with growers to gain their input. The drafts will then be printed for distribution at GAM. A document for Botrytis will also be developed for distribution in 2001.

Powdery Mildew

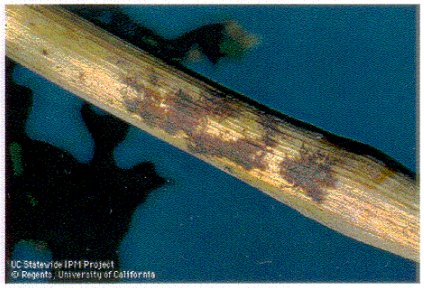
- Early spring infections on underside of basal leaves.
- Light yellow colonies, about ¼" diameter.

- Conidiaspores cause infections resulting in powdery, white mats of mycelia on the upper and lower leaf surfaces of shaded leaves.
- Similar looking infections will occur on shoots, petioles, and cluster parts.

- Pre-veraison berry infections have dusty white appearance.
- Severe infections may stunt and crack berries.



- The over wintering fruiting bodies, cleistothecia, are formed on severely infected tissue in late summer.



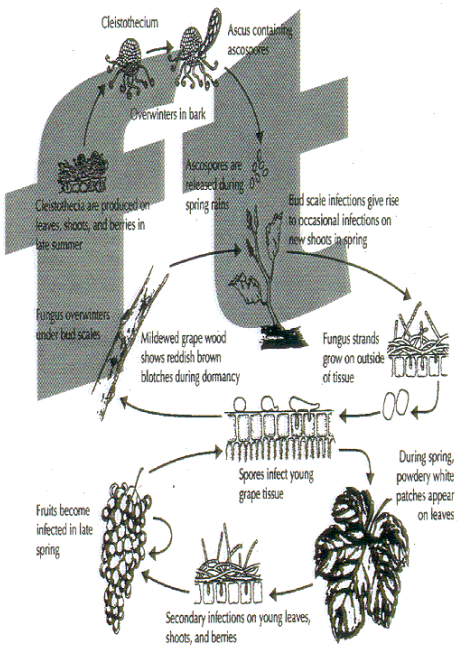
- Shoot infections turn reddish and blotchy after canes lignify.

Powdery Mildew

DATE	WHAT TO LOOK FOR
February March	After budbreak, ascospores are released under conditions of mild temperatures (45-80°F) as well as light rainfall, frost protection, dew or fog that wets leaves continuously for 12-15 hours. About 6-9 days after these conditions occur, look for individual, light yellow colonies, about ¼" in diameter on the lower surfaces of basal leaves. Rare, but occasional "flag" shoots emerge from dormant buds.
April May	Follow temperatures and not leaf wetness after initial infections occur. Conidia production begins 7-10 days after primary infection. The optimum temperature for conidia to germinate is 77°F. Mycelium produced by these spores grows rapidly between 70-85°F when a spore-to-spore generation can occur in 5 days. Look at upper and lower surfaces of shaded leaves as well as cluster rachises and stems in dense canopies or in crowded, shoot positioned vertical canopies. Mats of hyphal strands cause mildew colonies to look powdery. Select areas in the block that are renowned mildew hotspots or which are immediately adjacent to a severely infected vineyard.

DATE	WHAT TO LOOK FOR
June July	Overhead sprinkler irrigation, light summer rainfall and mild temperatures will lower inside canopy temperatures and increase mildew spore germination and infection. When temperatures remain between 70-85°F for at least 6 continuous hours for 3 or more days, mildew is reproducing every 5 days. Look for dusty, white web-like mat of mycelial strands on any green, shaded tissue.
August	With the onset of veraison, new berry infections are reduced yet existing colonies can continue to grow on the fruit. Fruit cannot become infected when sugars reach 15°Brix.
September	Cleistothecia begin to form on the mycelial mats. Petioles, shoots and cluster parts are still susceptible. As shoots lignify and turn brown, infections turn reddish and blotchy.
December	Dormant canes will have reddish, blotchy areas from the previous season infections.

Powdery Mildew Cycle



Phomopsis

DATE	WHAT TO LOOK FOR
December - February	When pruning look for whitish or bleached areas on the canes. These will have tiny raised black pimple-like pustules (fruiting bodies) that are the source of spores. In severe infections, the basal 1"-6" of a cane may also appear to be covered with a black scab that has longitudinal cracks. The bleach areas will be intermixed with scabby areas. The base of these canes may be dead at the time of pruning – killed outright by the fungus or by normal winter temperatures.
February - March	The buds on severely infected spurs may not push. If rain occurs after bud break, all green tissue is susceptible to infection; however it will be several days before any signs of infection occur. About 3 weeks after rains have fallen, small black dots with yellow margins begin to appear on the leaf blades as they expand. Infected spots on the shoot or cluster may be difficult to see at this time.
March-April	Heavy frequent rainfall will cause more infections and these will proceed to continue to damage the basal leaves, base of the shoot and all parts of the cluster. • Basal leaves may become distorted because infected areas prevent normal expansion of the leaf tissue. If the petioles are infected, the leaves may abscise. • Small oblong spots with black centers will appear on the base of the shoot. As the shoot elongates, so will these lesions and this causes the outer layer of green tissue to crack at the infection sites. Continued rainfall will cause large numbers of spots to eventually coalesce, which will result in a black scabby appearance. Internode length may be reduced in these areas thus the shoot will be stunted. Infections will only occur on the basal portion of the shoot. • Similar spots may be present on any part of the cluster rachis or peduncle. Portions of the cluster or the entire cluster may die and abscise.
May-June	Dry weather will stop the growth of the fungus. New infections will only occur with rainfall. In windy areas, shoots that were stunted early in the season may break off near the base where most of the disease symptoms are present.
June- July	After leaf removal occurs, shoots with black, scabby basal internodes will be easier to see. The impact on clusters, if any, will also be more apparent. Affected clusters will be smaller because pasts of it were killed before bloom.

Phomopsis

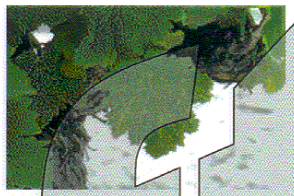
Bleached spur with tiny raised black pimple-like pustules. These are the overwintering fruiting bodies (pycnidia).

Longitudinal cracks intermixed with bleached areas on a severely infected spur.

Shoot Infections first appear in the spring at the base of the shoot as individual spots.

Cracks develop on the epidermis of the shoot as the lesions elongate.

The lesions coalesce to give a scabby appearance at the base of the shoot.



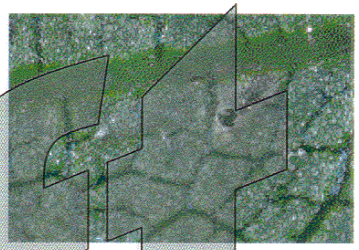
Basal leaves have chlorotic spots with a tiny black center.

Phomopsis Life Cycle Chart Here

Western Grape Leafhopper

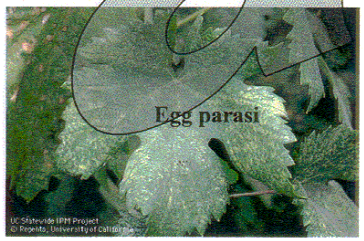
Adult
- 1/8 inch long
- Pale yellow with reddish and brown markings
- Overwinter as adults

Cast-off skin
- Fifth nymphal stage molts leaving cast-off skin on leaf
- Indication that adults are emerging leading to second generation brood



Egg Parasite
- Right: Round exit-whole from emerged parasite
- Left: unparasitized egg

Nymphs
- Five immature stages
- Small: 3/64 to 5/64 inch long
- Semitransparent with yellow markings
- Crab-like sideways movement



Damage
- Stippling on leaves
- As damage increases leaf turns pale yellow
- Leaves may dry up and fall

Western Grape Leafhopper

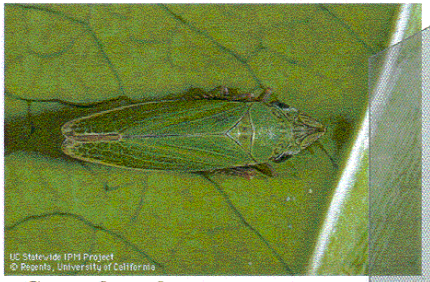
Date	**Insect Stage**	What to look for
Early to mid-May	• First nymphal stage	• Nymphs on lower surface of basal leaves • Stippling damage on basal leaves • Count nymphs on 10 leaves once a week • Record average nymph/leaf
Early June	• Peak number of nymphs of first season brood	• Same as above • Estimate vine canopy damage
Mid to late June	• Cast-off skins	• Look for parasite exit-wholes on grape leafhopper eggs
July	• Second brood nymphs	• Nymphs on lower surface of leaf at mid-shoot • Count and record number of nymphs/leaf on mid-shoot leaves • Estimate vine canopy damage
Pre-harvest	• Adults of second generation	• Assess adult population

Incomplete: Missing Life Cycle Chart

Sharpshooters

Blue-green sharpshooter

- 1/4 inch long.
- Dark-green to bluish green.
- Black markings on back of head and thorax and a yellow triangle between the wings.
- One generation/year.
- Feeds and breeds on woody plants.



Green sharpshooter

5/16 inch long.

- Green on the top side.
- Tan to dark brown legs and underside.

Three generations per year
Breeds and feeds on grasses.

Red-headed sharpshooter

- 1/5 inch long.
- Green wings and thorax.
- Sharply pointed head with reddish color apex.
- Four generations per year.

Breeds and feeds on bermudagras

Glassy-winged sharpshooter

- 1/2 inch long.
- Dark brown with lighter underside.
- Upper part of head stippled with yellow spots.
- Wings partly transparent with reddish veins.
- Breeds and feeds on woody and herba

Sonoma County Grape Growers Association
Photos by Jack Clark

Version 02-09-01

Sharpshooters

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Date	Insect Stage	What to look for
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INCOMPLETE: TABLE OF EVENTS

TO: Sonoma County Growers
FROM: SCGGA
RE: Grower Appellation Meetings: What's happening in your neighbor's vineyard? Learn what pest management decisions have been made.

Four vineyard managers and Laura Breyer, PCA, who is monitoring pests each week in each of the four appellation vineyards will share their experience with you. Come, enjoy a roll and cup of coffee and talk about grape growing.

Grower meetings will be held in a designated vineyard in each appellation where the local pest situation will be discussed. The vineyard manager will discuss his management actions over the previous month based on monitoring data collected. Reduced risk pesticide options will be discussed for each pest and disease.

Focus will be on the pests and diseases that are of most concern to growers at that time in the growing season.

Meetings are open to all Sonoma County growers.

PCA/PCO hours have been requested for each section of meetings. (1 hour for each set of meetings.)

Meeting Schedule:

HOST LOCATION	Russian River Duff Bevill Martini Ranch 2043 Laguna	Sonoma Valley Joe Votek Rancho Salina 17505 Mallard	Dry Creek John Clendenen Adams Vineyard 755 Canyon Rd.	Alexander Valley Pete Opatz Reedy Ranch 2655 Hwy 128
I -**Focus:** Powdery Mildew, Phomopsis* & Shoot Blight	May 1 9:15 a.m.	May 2 9:15 a.m.	May 3 8:15 a.m.	May 3 11:15 a.m.
II - **Focus:** Williamette Mites & Powdery Mildew	June 5 9:15a.m.	June 6 9:15a.m.	June 7 8:15 a.m.	June 8 11:15 a.m.
III - **Focus:** Grape Leafhoppers	June 26 9:15a.m.	June 27 9:15a.m.	June 28 8:15 a.m.	June 28 11:15 a.m.
IV - **Focus:** Botrytis & Pacific Mites	July 31 9:15a.m.	August 1 9:15 a.m.	August 2 8:15 a.m.	August 2 11:15 a.m.

**Phomopsis has been observed in several area vineyards. For more information on this disease and management, join us the first week of May at one of the above Grower Appellation Meetings or visit the SCGGA Website at www.scgga.com and click on Grower Toolbox.*

Registration information for any session is on the back of this form. There is no charge for any session

This project is funded by the California Department of Pesticide Regulation.

IPM/DPR Grant Project
Sonoma County Grape Growers Association
5000 Roberts Lake Road, Suite A
Rohnert Park, CA 94928

WE WANT TO HEAR FROM YOU

- **COME TO THE GROWER MEETING IN YOUR AREA**
- **TALK ABOUT GRAPE GROWING**
- **DISCUSS CURRENT PEST MANAGEMENT ISSUES AND SOLUTIONS**

To register for any of the sessions listed on the inside schedule and to be notified of the upcoming Grower Appellation Meetings:

1. Check off the location of the meetings you will be likely to attend and fax this side to the SCGGA at 206-0313 **by APRIL 28.**

OR

2. E-mail your name, address and which location you will be most likely to attend to azevedo@sonic.net.

Which location will you likely attend?

☐ Russian River Valley Martini Ranch 2043 Laguna	☐ Sonoma Valley Rancho Salina 17505 Mallard	☐ Dry Creek Adams Vineyard 755 Canyon Rd.	☐ Alexander Valley Reedy Ranch 2655 Hwy 128

For additional information, call Sonoma County Grape Growers Association – 206-0603

This project is funded by the California Department of Pesticide Regulation.

SCGGA Leafhopper Summary Sheet:

Block Name: *RCHR*

from: *4-10* to: *8-25*

Ranch Name: *Reedy Ranch*

Measure: nymphs per leaf

Grower: *Pete Opatz*

Block Monitoring Areas

Sample Date:	Northeast	Southeast	Southwest	Northwest	Average
4/13/00	0	0	0	0	0.0
4/20/00	0	0	0	0	0.0
4/27/00	0	0	0	0	0.0
5/4/00	0	0	0	0	0.0
5/11/00	0.3	0.3	0.2	0.2	0.3
5/18/00	0.7	0.7	1	1	0.9
5/25/00	8.7	5.7	2.3	3.7	5.1
6/1/00	8.5	6.9	3.8	3.1	5.6
6/8/00	0	0	0	0	0.0
6/15/00	7.2	11.8	3	3.6	6.4
6/22/00	1.7	4.3	3.1	2.3	2.9
6/29/00	2.1	1.9	1.4	0.9	1.6
7/6/00	1.8	0.9	1.3	1.3	1.3
7/13/00	0.5	1	0.5	1.6	0.9
7/20/00	0.6	0.5	0.9	2.1	1.0
7/27/00	4.4	2.7	6.1	4.4	4.4
8/2/00	7.5	8.2	7.1	5	7.0
8/10/00	4.7	3.8	6.4	5.1	5.0
8/17/00	1.1	1.5	1.3	2	1.5

Sonoma County Grape Growers Association
PO Box 1959, Sebastopol, CA 95473

Ph: 707 527 0200

DPR Grant/IPM Project Feedback Form

How many IPM Meetings did you attend?
1 2 3 4

How did you hear about the meetings/Field Day?
_____ Flyer _____ Word of mouth _____ Other
_____ Newspaper _____ SCGGA or Appellation Newsletter

Rate the information you gathered/heard at the meetings/Field Day.
Little new information - *Excellent information I can use in my vineyard*
1 2 3 4 5

Did the meetings/Field Day help in your understanding of Integrated Pest Management for vineyards?
Yes No

How? _____

_____

In the past, have you used any of the following materials?
_____ Mancozeb _____ Maneb (Dithane) _____ Omite _____ Vendex

If yes, did the meetings help decrease the use?
_____ Yes _____ No

Did the meetings/Field Day increase your awareness of soft chemical options available?
_____ Yes _____ No

Do you monitor vineyards regularly?
_____ Yes, either I do or my vineyard manager does.
_____ No, we do not.

If your vineyard manager monitors, do you feel the meetings helped you to better understand the monitoring results and recommendations?
_____ Yes _____ No

Do you keep records of your monitoring results?
_____ Yes _____ No

In previous years, have you been regularly monitoring your vineyards?
_____ Yes _____ No

Did you increase/decrease monitoring after attending IPM Meetings?
_____ Increased _____ Decreased _____ No Change

Did you change any management decisions based on information and discussion at the meetings?
_____ Yes _____ No

Please explain. _____

_____

Are you interested in participating in next year's project?
Contact Information:

Name _____

Phone _____

E-Mail _____

Please leave at SCGGA Table or fax to 206-0313.

Thank you for your feedback!

IPM Meeting Evaluation Summary

A total of 85 evaluations were distributed at the final Grower Appellation Meetings (GAM) July 31-August 2, 2000. Forty one evaluations (48%) were returned. Seven people attended one GAM, 13 people attended 2 GAM, 10 people attended 3 GAM and 11 people attended 4 GAM. Over half of the respondents (21) learned of the Grower Appellation Meetings through direct mail flyers and 20 respondents learned of the GAM through either the SCGGA or another appellation newsletter. Five heard via word of mouth and 4 read about the meetings in the newspaper. On a scale of 1 to 5, with 1 being "Little new information" and 5 "Excellent Information I can use in my vineyard" 6 people rated information gathered at the GAM as "3", 20 rated the information at a "4" and 14 rated the information as a "5". One respondent rated information at the meeting as a "2". Thirty-eight (93%) of the respondents indicated the GAM helped in their understanding of Integrated Pest Management (IPM). Seven respondents have used mancozeb (Dithane®) in the past, 8 have used maneb, 16 have used Omite® and 9 have used Vendex®. Of the respondents, 12 (29%) indicated the meetings helped them decrease the use of these materials. Seven respondents indicated the meetings did not help them decrease the use. (Three of the seven who responded "No" in regards to decreasing use added the following comments: "Our company has restricted the use." "Already decreased before the meetings." "Not yet, but I use very little anyway.") Thirty-five (85%) of respondents indicated the meetings increased their awareness of soft chemical options available. Thirty-five (85%) monitor their vineyards regularly, 6 respondents do not. Twenty-two of the thirty-four who monitor regularly have a vineyard manager who monitors and they feel the meetings help them to better understand monitoring results and recommendations. Seventeen (41%) of the respondents keep records of their monitoring results, twenty-one (51%) do not keep records. Twenty-five respondents regularly monitored their vineyards in the past, 13 did not monitor regularly. Twenty (49%) of those who responded increased monitoring after attending the GAM and eighteen (45%) indicated they did not change monitoring after attending the GAM. Zero deceased monitoring after attending the GAM. Twenty-three respondents (58%) changed management decisions based on information and discussion at the GAM and 16 (39%) did not change management decisions. Comments regarding management decisions are compiled in Evaluation Feedback 1.

In summary, the results of the final evaluation support our goals for the Pest Management Demonstration grant project. The primary goal of this project is to increase the use of field monitoring and 50% of those responding to our final evaluation increased field monitoring this summer. The second goal is to encourage the use of reduced-risk fungicides and pesticides. Thirty-percent of the respondents indicated the GAM helped them to reduce to use of four materials targeted in the demonstration grant and eighty-five percent indicated an increase in awareness of soft chemical options that are available. The comments written by respondents help to further illustrate the impact of the Grower Appellation Meetings.

GRAPE GROWERS TALK PEST CONTROL

Published on Saturday, April 29, 2000

The Sonoma County ***Grape Growers Association*** will hold a series of meetings starting next week to discuss field monitoring data that will be used to help ***growers*** control disease and insects with fewer chemical pesticides.

The schedule of meetings: 9:15 a.m. Monday at the Martini Ranch, 2043 Laguna Road in Santa Rosa; 9:15 a.m. Tuesday, Rancho Salina at 17505 Mallard Road in Sonoma; 8:15 a.m. Wednesday at the Adams Vineyard, 755 Canyon Road in Geyserville, and 11:15 a.m. Wednesday at the Reedy Ranch, 2655 Highway 128 in Geyserville.

The meetings are being held in major ***grape*** growing regions for convenience. The meetings are free and open to all interested producers.

The meetings will focus on progress in combating three common grapevine diseases: powdery mildew, phomopsis cane-leaf spot and botrytis shoot blight.

The year-long study, which started in March, is being conducted by the ***Grape Growers Association*** with a $50,000 grant funded by the California Department of Pesticide Regulation. The goal is to develop and distribute environmentally sensitive methods to control vineyard pests.

For more information on the meetings contact Nick Frey, executive director of the ***Grape Growers Association***, at 206-0603.

Healdsburg Tribune
Windsor Times

AGRICULTURE

Grape Growers seminars on Integrated Pest Management

Sonoma County Grape Growers is offering three seminars in early June dealing with Integrated Pest Management.

The first is at 9 a.m. on Monday, June 5 at the Martini Ranch Vineyard, 2143 Laguna Road in Santa Rosa.

The second is at 8 a.m. on Wednesday, June 7 at Adams Vineyard, 755 Canyon Road in Geyserville.

The third is at 11 a.m. at Reedy Ranch, 2655 Highway 128 in Geyserville.

The focus will be on Powdery Mildew, grape leafhoppers, and reduced-risk pesticide alternatives.

The discussions are open to all Sonoma County grape growers.

All the seminars are funded by the California Department of Pesticide Regulation. For more information call 206-0603.

UC website offers agricultural meetings online

The University of California Cooperative Extension has launched a new website that gives California farmers access to certain UC agricultural meetings anytime over the Internet.

The website [illegible] on the glassy-winged sharpshooter.

Phillips' presentation includes 62 images that can help distinguish the glassy-winged sharpshooter from other sharpshooter

UC Davis winemaking classes

The University of California Extension of Davis is offering a variety of short courses in wine-making from "[illegible]

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• Petty theft was reported at Dewitt Automotive Recyclers on Eighth Street East. An unknown subject climbed over a locked gate and siphoned 30 gallons of gas from a work truck, according to a sheriff's report. The cost of the fuel is estimated at $60.

• Petty theft was reported in the 17600 block of Highlands Avenue. A sheriff's officer was flagged down by the victim at Vallejo Avenue and Highlands Avenue. The victim reported that a car stereo was stolen from his Volkswagen Bug, which was parked, unlocked, at his residence. The stereo is valued at $150.

Friday, June 9:

• 6:36 p.m. – A 51-year-old man and a 50-year-old woman were both arrested for domestic battery in the 17100 block of Vailetti Drive. The suspects had a romantic relationship and lived together. Both had slapped each other, according to a sheriff's report. There were inconsistencies in both their stories, so they were both arrested.

• 11:29 p.m. – Daniel McConnehey, 44, 251 Wilking Way, Sonoma, was arrested for domestic violence, rape and false imprisonment. The suspect and the victim are prior cohabitants and are in a dating relationship, according to a sheriff's report. The victim reportedly was punched and thrown by the suspect. According to the report, the suspect raped the victim, who was told not to call police. The victim refused medical treatment.

Saturday, June 10:

• 4:45 p.m. – Petty theft was reported from a visitor to Landmark Vineyards in Kenwood. Unknown suspects reportedly took a purse from a car. Inside the purse were six different credit cards, about $120 in cash and a driver's license. Total loss is estimated at $200.

Sunday, June 11

• A commercial burglary was reported at the Pepsi Bottling Group/Coca Cola Bottling Group in the 13700 block of Arnold Drive in Glen Ellen. Unknown suspects removed the outer padlock and catch, then drilled the inside lock of soda machines. The suspect removed money from one machine but not the other. The loss is valued at $50.

Meetings will look at fighting vineyard pests

Another series of countywide meetings will be held June 26 to 28 to discuss an integrated approach to managing vineyard pests without using chemicals.

Funded by the California Department of Pesticide Regulation and sponsored by the Sonoma county Grape Growers Associations, the latest series of sessions will be held in Santa Rosa, Sonoma Valley and Geyserville.

Pest control advisor Laura Breyer will discuss grape leafhoppers, powdery mildew, reduced-risk pesticide alternatives and other vineyard pest problems.

The first session will be held at 9 a.m., Monday, June 26, at the Martini Ranch Vineyard, 2143 Laguna Road, Santa Rosa. Vineyard manager Duff Bevill will join Breyer in leading the discussion.

At 9 a.m., Tuesday, June 27, the meeting will be held at the Salina Ranch, 17505 Mallard, Sonoma, with vineyard manager Joe Votek joining Breyer in leading the discussion.

Two sessions will be held in Geyserville: 8 a.m. at Adams Vineyard, 755 Canyon Road; and 11 a.m. at Reedy Ranch, 2655 Highway 128.

For more information, call the Sonoma County Grape Growers Association at 206-0603 or e-mail to azevedo@sonic.net.

The association's integrated pest management project is coordinated by Lisa Azevedo.

Group eyes teen sexual violence

"Teen Sexual Violence – A Call to Action" is a countywide response to the rise in teen sexual violence.

Some 241 non-familial sexual assaults against adolescent girls, 12 to 17 years old, were reported in 1999 in Sonoma County.

"A Call to Action" meeting will be held from 3 to 4:30 p.m., Wednesday, June 21, in Booker Hall at La Luz multicultural center at 17790 Greger St., in Boyes Hot Springs.

The regional effort in Sonoma Valley is designed to generate awareness, educate and serve youth and families.

Participants will discuss ways the Sonoma Valley community can take an active role in responding to the prevalence of teen sexual violence.

For more information, call Doug Scott at 996-7991 or Julie Zak at 935-8111.

GRAPEVINE

Sonoma Valley
Vintners & Growers Alliance

JULY 2000

Annual Grape Inventory Project

The SVVGA is undertaking its annual survey of uncommitted grapes, a confidential inventory that can help you find buyers for available fruit. A simple form is included with the Grapevine mailing. The project will provide a collective list of these uncommitted grapes to interested vintners. All negotiations and terms will be between grower and vintner. As in the past, this initial data gathering should help match buyers with sellers. Please participate!

Save the Date August 8-- Field Day will Visit Successful CalFed Grant Projects

Grape growers in the Sonoma Creek Watershed are eligible for a new CalFed grant -- funds earmarked for vineyard projects which enhance water quality and wildlife habitat. On Tuesday, A members are invited to tour th vineyard projects funded by last y creek restoration at Ravenswood boxes and rock-lined drainage Vineyards; and drywell ar enhancement at Atwood Ranch. C of projects eligible for grant suppo your own application. Transport lunch will be provided. Morning m 8:15 at the Sonoma Vets Buildi funding, the $77,000 grant was r Sonoma Ecology Center, Southern Sonoma County RCD and the San Francisco Estuary Institute. The grant will provide 60% of the approved project cost, with the grower responsible for 40% in cash or in-kind services. The application process will be simple, and handled by a committee of local industry members.

Countywide GWSS Monitoring Program

Sonoma Valley grape growers and wineries are urged to place and monitor sticky traps, a program announced June 15 at the Vineyard Technical Group. The SCGGA will record the data, and share map locations with the County Ag. Commissioner's office to build county-wide monitoring coverage. If you are willing to place four traps, and report weekly, please e-mail azevedo@sonic.net or fax 206-0313. Include name, e-mail or fax, vineyard address, parcel number if possible, and number of traps at each address. The SCGGA will fax or e-mail weekly reminders for information to all volunteers. Call 206-0603 for more info.

Final SVVGA Vineyard ToursThis Season on July 12 and July 19

The 'In Your Vineyard' Series wraps up the season in July with a 1pm tour of Gloria Ferrer vineyards on the 12th and a meeting at Los Chamizal Vineyards on the 19th. Mike Crumley will lead the first tour at Gloria Ferrer, which will explore conservation planning for vineyards. Later this year, SVVG will hold more in-depth workshops on this topic. Peter Haywood will host the second tour at Los Chamizal, which will highlight the use of corn gluten. Haywood will demonstrate how corn gluten, an organic preemergent herbicide, can be combined with compost for ease of application and increased nutrient delivery . These members-only sessions are free. To attend, please RSVP to series coordinator Ned Hill at 975-0354.

Latest Field Data Shared at Integrated Pest Management Meetings

The final Sonoma County Grape Growers Association's IPM meeting in Sonoma Valley convenes Tuesday, August 1, at Rancho Salina, 17505 Mallard. Joe Votek, Laura Breyer PCA, and vineyard managers will discuss field data beginning at 9:15am. Tentative topics include Botrytis and Pacific Mites. Also, the latest pest monitoring reports will be distributed, management actions discussed and grower questions answered. A recap of the entire IPM grant project, including a demo of the IPM database, will be held at Shone Farms from 3-5pm on August 23 at 6225 Eastside Road. A vineyard tour, Q & A with UC Extension experts and hors d'oeuvres (bring a bottle) are included in this session.The meetings, funded by a grant from the Department of Pesticide Regulation through the SCGGA, are free. For more information call 206-0503.

Owl Points Bulletin

The Wildlife Center in Kenwood has an urgent problem: lack of food (mice) to feed rescued owls. Donations will help feed the baby birds before they are released into nature, where they help control rodents in vineyards and farmland. An average barn owl family dispatches about 4,000 rodents a year! The Center needs to raise $1000 for this program. Call Leslie Fay (996-3838) or the Wildlife Center (575-1000) or send a monetary donation to the Center's Mouse Fund, P.O. Box 670, Kenwood 95452.

Sonoma Valley Vintners and Growers Alliance
17964 Sonoma Highway, Sonoma, CA 95476 707-935-0803 FAX 707-935-1947

Auction Ticket Discounts for SVVGA Members...

The Grapest Show on Earth is a darn good deal, too. The Sonoma Valley Harvest Wine Auction is for the first time offering special discounts to SVVGA winery, grower and associate member attendees:

- Vintners & Growers Picnic, Sept. 2: $37.50 (Limit 4)
- Sunday Main Event, Sept. 3: $157.50 (limit 10)
  $175 for additional non-member guests
  $95 (limit 2) for every donated auction lot with an $800 retail value.

Note: all prices will rise on August 1 -- please call 935-0803 for a registration form ASAP! Meanwhile, for complete Auction info, and a peek at Ron Zak's latest poster masterpiece, visit www.sonomavalleywine.com

... or Pour Your Way In

Calling all experienced wine pourers! Volunteers are needed for the main auction event on Sunday, September 3. Have corkscrew, will travel? Call 935-0803 to join the wine circus and raise money for Sonoma Valley charities.

Info by the Glass... The Grapevine Personals

Trying to Blend In: The Meritage Association and Chairman Michaela Rodeno invite you, particularly those growing Bordeaux varietals and making Bordeaux-style wines, to visit its website: www.meritagewine.com.

Space Probe: Co-op advertising space in *Via* magazine is being brokered by the Sonoma Valley Visitors Bureau to its members. Deadline for the Nov/Dec section "Discover Wine Country and Spas" is this month. Contact Barbara Digman at Via: 415/565-4175.

Outwardly Mobile: John Meyn is looking to donate a mobile home for use by vineyard workers. Call him at 935-1608.

Hot Summer Getaway: UC Davis

July 15:	Intro to Wine Analysis
July 17-20:	Wine Stability Workshop
July 22:	Integrated Pest Management, Cover Crops and Erosion Control
July 31:	Winegrape Variety Identification Workshop

For info visit www.universityextension.ucdavis.edu or call 800/752-0881.

Wine World Calendar

July 8 -- Windsor
CNCGGA 2000 Annual Meeting and Pre-Harvest Celebration
Trade and art show, wine tasting, dinner and fundraising auction for the California North Coast Grape Growers Association. Richard's Grove in Saralee's Vineyard. $30. 707/578-8331

July 12 -- Sonoma Valley
SVVGA "In Your Vineyard" series
Gloria Ferrer: Implementing a Farming Plan. Mike Crumley leads 1pm visit. Free. RSVP: 975-0354

July 19 - Sonoma Valley
SVVGA "In Your Vineyard" series
Los Chamizal: Demonstration of Corn Gluten in the Vineyard. Peter Haywood and Bio-Weed host 10am program. Free. RSVP: 975-0354

July 27 -- Sonoma Valley
Biodiversity within Agroecosystems
Discussion with Miguel Altieri, PhD; Q and A; Continental breakfast. 9-11:30am. Free. Benziger Family Winery. 935-4066.

July 31 - August 5 -- San Jose
Society of Wine Educators' Conference
24th annual. For details see: www.wine.gurus.com

August 1 -- Sonoma Valley
Integrated Pest Management Meeting
Final SCGGA appellation meeting. 9:15am. Rancho Salina. Free. 206-0603.

August 8 - Sonoma Valley
Vineyard Field Day
Visit three demonstration sites to view projects funded through the CalFed grant. Lunch and transportation included. 8:15 am. $20. 935-0803

August 23 - Santa Rosa
Sonoma County IPM Field Day
Recap of the IPM grant project. 3-5pm. Shone Farms. Free (bring a bottle of wine). 206-0603

September 2 - 4 - Sonoma Valley
Sonoma Valley Harvest Wine Auction
Picnic, main auction, winery dinners, Pinot Noir and Merlot panels. Prices very by event. (Purchase tickets by August 1 for discounts). 935-0803

Sonoma Valley Vintners and Growers Alliance
17964 Sonoma Highway, Sonoma, CA 95476 707-935-0803 FAX 707-935-1947

During those couple of years the grower and the winery can evaluate whether the relationship works, doesn't work, or could work if.... Did you deliver when you said you would? Did they take them at the optimum time? Did they pay you on time? Did they have constructive advice about your viticultural practices or did they just complain about things over which you had no control? Was communication good and timely? Most importantly, how is the wine? Do your grapes fit the style of wine they are after? Would they buy these grapes if they weren't legally bound to do so?

One press article following Dollars and Sense reported that growers had been told to sign short-term contracts because prices were still going up. That reporter entirely missed the point we were trying to make about building relationships. Average prices may continue to increase or not. In the lifetimes of vineyards being planted now, we will see plenty of increases and decreases. But average prices are for commodities. (Nobody places a "wheat-field" designation on a loaf of bread.)

While wineries will be aware of other sources for grapes and what those grapes would cost, they will be even more aware of how their wines, made with your grapes, are faring in the market. If consumers are snapping up the wine, getting the best price for your grapes is a natural part of the quation. Just be sure to give yourself the time and flexibility to find those good fits between vineyard and winery. Once the good fits are found, there are plenty of pricing mechanisms to consider for longer-term contracts.

Again, we look forward to your participation in this column. Let us hear from you by posting a message on the Bulletin Board (scgga.org/Growers Toolbox), contacting scgga@sonic.net or faxing a response to (707) 823-6850.

INTEGRATED PEST MANAGEMENT PROJECT UNDERWAY

Nearly 100 growers attended the first series of IPM Appellation Meetings May 1-3. Phomopsis and Willamete mites were the main focus. Using hand lenses and microscopes, growers had a close-up look at phomopsis lesions and searched for the elusive predacious mites, though telling the difference between the Willamettes and their predators was not always easy. "It's a little like being able to tell the difference between two grape varieties," said Laura Breyer, IPM Field Specialist for the project.

Funded by a California Department of Pesticide Regulation (CalDPR) grant, SCGGA is holding a series of monthly meetings throughout the growing season to foster IPM practices that will enable growers to better anticipate pests and diseases in their vineyards, and to act accordingly. (See meeting locations and schedule below).

The IPM project team is also customizing a state-of-the-art field-monitoring database to be compatible with the techniques discussed at the meetings. "We need to follow the ABC's of IPM, which are monitoring, keeping record of those observations, and threshold-based decisions," said Lucia Varela, UC Cooperative Extension Area IPM Advisor and Project Team member. Field monitoring data from four grower cooperators are being used to demonstrate the database's use as a practical tool. Treatment decisions are based on the data compiled from Laura's weekly monitoring.

Meetings are open to all grape growers. PCA/PCO hours will be given for each meeting (1 hour each). Attend the meeting that is most convenient for you, even if you have registered for another location. People who registered for our

IPM MEETING SCHEDULE:

	Russian River Duff Bevill Martini Ranch 2043 Laguna	**Sonoma Valley** Joe Votek Rancho Salina 17505 Mallard	**Dry Creek** John Clendenen Adams Vineyard 755 Canyon Rd.	**Alexander Valley** Pete Opatz Reedy Ranch 2655 Hwy 128
II - Focus: Willamette Mites & Powdery Mildew	June 5 9:15a.m.	June 6 9:15a.m.	June 7 8:15 a.m.	June 7* 11:15 a.m. *Note: Date Change*
III - Focus: Grape Leafhoppers	June 26 9:15a.m.	June 27 9:15a.m.	June 28 8:15 a.m.	June 28 11:15 a.m.
IV - Focus: Botrytis & Pacific Mites	July 31 9:15a.m.	August 1 9:15 a.m.	August 2 8:15 a.m.	August 2 11:15 a.m.

*Note: this is a change from a previous flyer.

Invite a neighbor!! *Sonoma County Grape Growers Association wants to support as many growers as possible in their efforts to make positive and profitable changes in grape growing.*

first group of meetings will be notified of upcoming meetings. If you would like to be included on our mailing list of upcoming meetings, please fax your name and address to SCGGA, 206-0313, e-mail at: azevedo@sonic.net or call SCGGA, 206-0603. You can get current information about the program on our web site. Go to www.scgga.org and select the Growers Toolbox. Also check the Bulletin Board for grower comments and questions.

IPM GRANT PROJECT AUGUST FIELD DAY

As the newsletter goes to print, we are in the process of organizing a Field Day in late August. Specific date and schedule are to be determined. We will have more information in our next newsletter and post the dates in local newspapers. The day will be a culmination of this year's IPM Grant Project and will be loaded with information that you won't want to miss. Our database will have a full season of field monitoring data to show. We will also be evaluating the results of IPM monitoring on treatment decisions, as well as what worked and what didn't for us and for you.

CAFF COMMUNITY SEMINARS UPDATE

By Bob Hopkins,
SCGGA Board Member and Past President

"Vineyards, Community and Nature" was the title of a series of public meetings sponsored by CAFF, the Community Alliance with Family Farmers, in February, March and April of this year. CAFF is a nonprofit membership organization, "building a movement of rural and urban people to foster family scale agriculture that cares for the land, sustains local economies, and promotes social justice." The talks were arranged with four or five speakers representing different points of view giving a brief presentation on a topic followed by discussion with members of the audience. Several Sonoma County Grape Growers Association members spoke at the meetings.

SCGGA President Pete Opatz spoke at the first meeting on the topic, "Grappling with Change." He was joined by SCGGA member Terry Harrison who gave a brief history of agricultural production in Sonoma County and Judy James representing the Sonoma County Farm Bureau.

The second meeting was on the subject of "Land Use Decisions and Implication." At this meeting SCGGA Past President John Rauck discussed how he makes decisions on issues such as replanting, cultivation, and pest management.

Mike Benziger was the grower representative at the third session on "Rivers, Wildlife and Habitat." Mike described the evolution of the Benziger Family grape growing philosophy.

At meeting number four, SCGGA Board Member and Past President, Bob Hopkins was part of a panel that addressed the issue of "Grower/Neighbor Conflicts." He outlined operational changes which he has made, such a spraying at night in sensitive areas, notifying neighbors before spraying, and employee training on issues such as pesticide drift and equipment noise.

The last in the series of meetings was titled "Visions of a Healthy Vineyard/Farm." Speaking as grower representatives were SCGGA members Mike Vail, viticulturist for Vino Farms, and Sonoma Valley grower Peter Haywood. Vail discussed the need for profitability as a primary component of a healthy vineyard. He and Haywood addressed such things as use of cover crops to reduce erosion and selection of pesticides with regard to their environmental impacts.

The community discussions which followed each panel presentation ranged from contentious to constructive, addressing such issues as vineyard development near schools, farmworker wages and housing, public anxiety over vineyard planting in new areas, and pesticide use. In some cases, real communication took place between growers and non-growers. In others, there was simply an opportunity for each side to make its feelings known.

CAWG RECEIVES PEST MANAGEMENT ALLIANCE GRANT

The California Association of Winegrape Growers (CAWG) has received a Pest Management Alliance (PMA) grant from the California Department of Pe Regulation. The objectives of the grant include increasing integrated pest management practices throughout the state, developing weed control programs that reduce use of preemergent herbicides like simazine, and implementing best management practices for sulfur dusting to reduce off-site drift, especially around sensitive areas.

The Sonoma County Grape Growers will be collaborating with CAWG under the grant. "We will be identifying vineyard sites in Sonoma County that can demonstrate the desired management practices for other growers on the North Coast. The CAWG program will bring additional attention to IPM practices, including those that reduce the use of herbicides that have the potential for groundwater contamination and that insure sulfur dusting is done so that off-site and worker exposures are minimized. While sulfur has low toxicity, it can irritate eyes or skin. We need to decrease those incidents so this important fungal control measure is maintained for grape growers and organic producers," said Nick Frey, an advisor to the program. This CAWG initiative complements the SCGGA Integrated Pest Management program, which is also funded by a DPR grant.

INSTANT SURVEY RESULTS TO DATE

By Nick Frey and Lisa Azevedo

SCGGA has committed time and money in order to represent growers in our community. Effective representation requires good information about grower practices and

Brix report
Sonoma County Grape Growers' Association IPM Project Cooperators

Principal Investigator	Vineyard Location	Date	Brix
Bevill	Martini Ranch	15-Aug	19.7
Opatz	Reedy Ranch	17-Aug	19.5
Clendenen	Adams Ranch	25-Aug	16.0
Votek	Rancho Salina	29-Aug	17.2

Evaluation Feedback 2

Did the meetings help in your understanding of Integrated Pest Management for Vineyards? How?

Benefit of cover crops for the habitat of beneficials
Recent info on techniques/options other than sprays
By knowing what to do with certain types of pest "problems" - to spray or not to spray
How to identify
Identification
Helped pull together bits of info into a coherent strategy
Monitoring for spider mites
Timing of operation IPM
Physical show-and-tell
Exchange of information with fellow growers
Better understanding of mites and predators
More knowledge = better informed decisions
Emphasis on monitoring - tolerating some pest damage
I.D. insect pests
Description of symptoms, possible treatments
Hearing the role that beneficials do for us explained by the instructor and others attending the meetings
I had made up my mind before attending meetings to use soft chemicals, but a better understanding came from them
It's always refreshing to hear a viewpoint other than a chemical salesman's.
Hands on in the vineyard demonstrations - now I'm much more aware of biological controls.
I wish language was a little less technical - or explained a little better
Learned more about threshold limits - when I get to the point of economic loss
General introduction to ID of beneficials and the target bugs
Learning some of the terms used in this discipline; opportunity to look at plant tissues w/ guidance
Compare other vineyards and managers' activities
Find the problem before acting
Helped target vineyard pests
Measure extent of problem before treating
I am a new grower and hands-on examples & sharing of experiences with other growers puts things into perspective.
Monitoring, observation, treating the correct problem and options for treatment
Better understanding of cycles of mites
Ways of evaluating – identifying and treating problems
Already had a good understanding +/-

Evaluation Feedback 1

Did you change any management decisions based on information and discussion at meetings?

May be able to withhold some spray based on populations
More diverse use of chemicals
Planning application of information
Management and understanding of spider mites
Different applications
Waited longer to use some chemicals - waited to see how beneficials would impact
I feel we manage IPM pretty well as is
Intend to do more monitoring
Check more often.
Put out traps
Good people - good information - good conversation
Irrigation scheduling, might try cutting PD above graft and regrowing.
I wanted to use a chemical that would be easy on my beneficials. I gained confidence from the meetings.
We didn't need to this year - but would've changed use of chemicals if necessary.
Increased basic awareness - what to look for - levels that are of economic concern
Will plant more summer flowering wildflowers, etc. to provide more beneficials habitat.
I will eliminate the use of hard chemicals and will use soft chemical alternatives.
Acquired equipment info from Duff's meeting - leaf blowers
I didn't change any decisions as this is a first year vineyard.
Soft chemicals, less chemicals
Rejected vineyard manager's recommendation to spray for mites.
I didn't use any sulfur in my vineyards this growing season. I used oil in all my mildew sprays (7 times)
Used Elite and Elevate for the first time. Trying to remove poison oak, blackberry, vinca and native grape vines.